

REMARKS/ARGUMENTS

The present amendment is responsive to the Office Action dated April 3, 2008. Claims 19 and 20 have been amended. No new matter has been introduced by these amendments. Claims 1, 4, 7-12 and 15-16 were previously cancelled. Claims 2, 3, 5, 6, 13, 14 and 17-20 are again presented for consideration in view of the following remarks.

As an initial matter, applicant would like to thank the Examiner for the telephone interview conducted with the undersigned attorney on June 2, 2008. The discussion centered around the rejections based on U.S. Patent No. 5,630,119 ("*Aristides*"). Possible amendments to the independent claims were also discussed.

Claims 3, 6, 13-14 and 19-20 were rejected under 35 U.S.C. § 102(e) as being anticipated by *Aristides*. Applicant respectfully traverses the rejection. Before addressing the deficiencies of *Aristides*, applicant notes that the independent claims have been modified in view of the interview to clarify how clone EPG objects are employed.

Claim 19 has been amended to recite, in part, "an allocation unit operable to allocate the second program guide information as one or more clone EPG objects in a retrieval table for retrieval based upon the time slots spanned by the program, wherein each of the clone EPG objects is allocated to a single one of the time slots spanned by the program by directly copying the first program guide information of the program as the clone EPG objects and then setting each clone EPG object to a respective one of the time slots spanned by the program; and a retrieval unit employing a given one of the time slots as a search condition to set retrieval processing, the retrieval unit being operable to retrieve a respective one of the clone EPG objects for the second program guide information from the retrieval table using the given time slot as the search

condition to identify the respective clone EPG object for the program."

And claim 20 has been amended to recite, in part, "allocating the second program guide information as one or more clone EPG objects in a retrieval table for retrieval based upon the time slots spanned by the program, each of the clone EPG objects being allocated to a single one of the time slots spanned by the program by directly copying the first program guide information of the program as the clone EPG objects and then setting each clone EPG object to a respective one of the time slots spanned by the program" and "retrieving a respective one of the clone EPG objects for the second program guide information from the retrieval table using the given time slot as the search condition to identify the respective clone EPG object for the program."

As will be shown below, *Aristides* does not disclose or suggest clone EPG objects as claimed. *Aristides* is directed to an interactive entertainment distribution network. As explained in the Abstract:

Disclosed herein is an interactive entertainment distribution network including a headend which is connected to provide programs to a plurality of user interface units in individual homes. The user interface units are configured to run electronic program guides for displaying available programs categorized by discrete time slots. Each of the programs has a scheduled time period which occupies at least a portion of one or more of the discrete time slots. The headend maintains a database with a plurality of program data records. Each program data record is indexed by one of a plurality of bucket numbers. The bucket numbers correspond respectively to the plurality of discrete time slots. Each particular program is represented by a program data record and associated bucket number for each of the one or more discrete time slots which the program occupies. The electronic program guide requests programming information from the headend by specifying one or more bucket numbers to the headend.

(Abstract, emphasis added.)

According to the Office Action, *Aristides* "teaches that each data record for a program stored in the database and

thus stored in the user's EPG memory has a bucket number that corresponds that program to a particular time slot(s), Fig. 3-Fig. 4. Each unique bucket number is assigned to a unique 30 minute time slot, in a particular week, for instance a four-week period would contain $(24 \times 2) \times (7 \times 4) = 1344$ bucket numbers. Therefore, as per the example of Fig. 4, if a program has a duration of 1.5 hours, the instant program would have a clone object that spans 3 bucket numbers, i.e., 3 x 30 minute time slots." (Office Action, p.3.)

Aristides explains how a bucket list and bucket numbers are communicated between a network database and a local EPG as follows:

Step 112 comprises running an electronic program guide on a user interface unit in an individual home. The electronic program guide executes a step 114 of requesting programming information from the cable system's headend by specifying one or more bucket numbers to the headend. For example, suppose that a viewer's EPG initially shows a grid consisting of channels 5, 6, and 7, for time slots 8:00-8:30, 8:30-9:00, and 9:00-9:30. Suppose than the viewer then scrolls horizontally to display time slots 8:30-9:00, 9:00-9:30, and 9:30-10:00. In response to a request by the viewer to display a new time slot (9:30-10:00), corresponding for example to bucket number 348, the EPG issues a request or query to database 70 for any program data records having a bucket number of 348 which reference a program available on channel 5, 6, or 7. Because the data records are indexed on database 70 by bucket number, very little work is needed to locate these records.

(Col.5, 11.43-59, emphasis added.)

The reference goes on to state that a table identical to the bucket table stored at the headend database may also be stored at the EPG. See col.6, 11.1-19. As best understood from Aristides and the Office Action, each bucket number is unique for all timeslots going back to a specific starting date. "As a more specific example, the bucket number for any specific time

slot could be calculated as the number of elapsed seconds from Jan. 1, 1970, to the beginning of the time slot." (Col.6, 11.16-19.) However, as each bucket is particularly associated with one time slot, a given bucket may apply to multiple programs. See, for instance, FIG. 4 of *Aristides*. This figure shows that bucket 335, which corresponds to the 3:00 - 3:30 timeslot, is also associated with multiple programs (such as programs A and B). FIG. 4 of *Aristides* is reproduced below.

| <i>BUCKET NUMBER</i> | <i>TITLE</i> | <i>START</i> | <i>END</i> |
|--------------------------|--------------|--------------|------------|
| 335 | PROGRAM B | 3:05 | 3:30 |
| 335 | PROGRAM A | 3:15 | 4:15 |
| 336 | PROGRAM A | 3:15 | 4:15 |
| 337 | PROGRAM A | 3:15 | 4:15 |
| | | | |

It appears that once the EPG identifies a relevant bucket, either through a timeslot table or via calculation, then the EPG issues a database request to the headend for any program data records corresponding to that bucket number. See column 5, lines 54-59 and column 6, lines 58-61. But as noted in the example of FIG. 4, program data records about multiple programs may correspond to the identified bucket.

However, this is not what is claimed. In contrast to *Aristides*, in the claimed invention (of claim 19), each of the clone EPG objects is "allocated to a single one of the time slots spanned by the program by directly copying the first program guide information of the program as the clone EPG objects and then setting each clone EPG object to a respective one of the time slots spanned by the program." The specification provides an illustrative example as follows.

[0097] First, at step S21, the EPG manager outputs a

message to a predetermined EPG object, and requests transfer of the broadcast start time ($H_1M_1S_1$) and broadcast end time ($H_2M_2S_2$) of the program. In response to this request, the EPG object transfers the stored broadcast start time and broadcast end time to the EPG manager. On receiving the broadcast start time and broadcast end time, the EPG manager sets the relative time and generates a clone EPG object, at step S22.

[0098] For example, it is assumed that a program A starts at 19:00 and ends at 20:49, a program B starts at 20:50 and ends at 20:59, a program C starts at 21:00 and ends at 21:29, and a program D starts at 21:30 and ends at 21:59, as shown in the program configuration 141 of Fig. 17. In this case, clone EPG objects are generated by directly copying the EPG objects of the respective programs. Then, the relative time with respect to time slots with a length of one hour is set, as shown in the program configuration 142 of Fig. 17. For example, since the program A is a program from 19:00 to 20:49, the relative start time of the first clone EPG with respect to the first time slot is 00 minutes and the relative end time is 59 minutes. The relative start time of the second clone EPG with respect to the second time slot is 00 minutes and the relative end time is 49 minutes.

[0099] As for the clone EPG object of the program B, the relative start time with respect to the second time slot is 50 minutes and the relative end time is 59 minutes. As for the clone EPG object of the program C, the relative start time with respect to the third time slot is 00 minutes and the relative end time is 29 minutes. With respect to the clone EPG object of the program D, the relative start time with respect to the third time slot is 30 minutes and the relative end time is 59 minutes. Fig. 14 shows such an EPG object having the relative start time and the relative end time registered.

[0100] Then, the processing goes to step S23, and the EPG manager carries out processing to allocate the clone EPG objects on the retrieval table with reference to the time slots. For example, the first clone EPG object of the program A is allocated to a time slot of 19:00 to 19:59 and the second clone EPG object of the program A is allocated to a time slot of 20:00 to 20:59, as shown in the program configuration 143 of Fig. 17. The clone EPG object of the program B is also allocated to the time slot of 20:00 to 20:59.

The clone EPG objects of the programs C and D are allocated to a time slot of 21:00 to 21:59.

[0101] Thus, programs having a length of one hour or more are allocated over plural time slots.

[0102] In each time slot, each clone EPG object is arrayed with reference to the relative time within that slot.

(Emphasis added.)

As is explained in the application, when the clone EPG object(s) are created, a retrieval table may be produced. The allocation of clone EPG objects for given programs and timeslots is shown in FIG. 17, and an exemplary retrieval table is shown in FIG. 18. These figures are reproduced below.

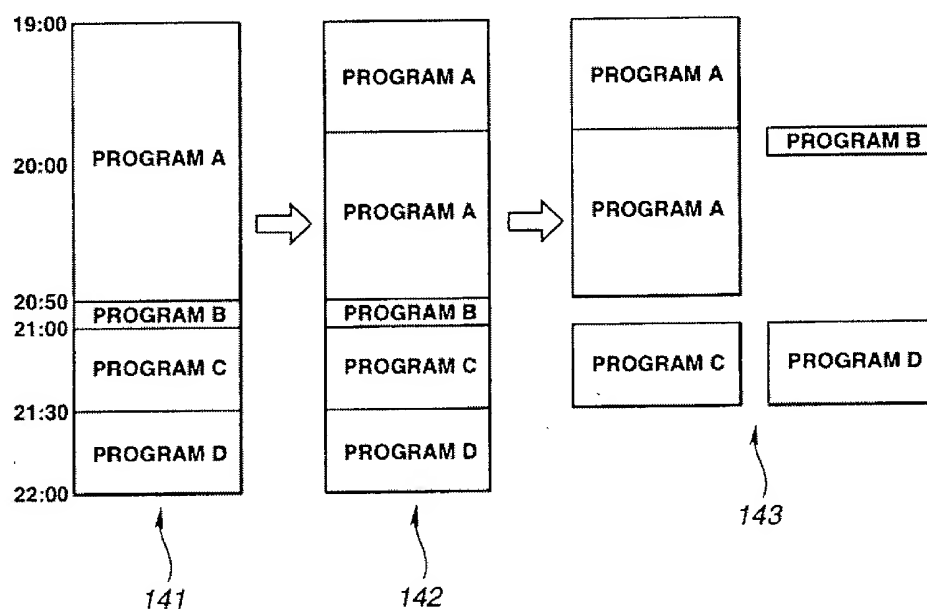
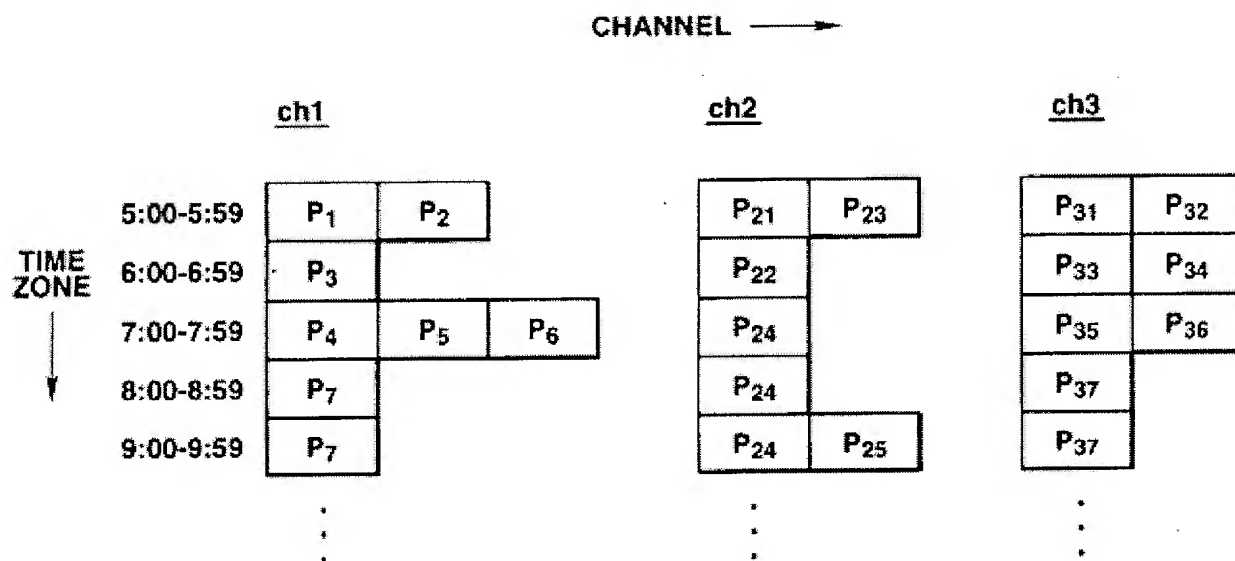


FIG.17

**FIG.18**

In view of the above, applicant respectfully submits that *Aristides'* use of a bucket table and bucket numbers to retrieve program data records from a headend database does not anticipate independent claims 19 and 20. Therefore, applicant requests that the rejection of these claims be withdrawn.

Furthermore, claims 3, 6 and 13-14 depend from independent claims 19 and 20, respectively, and contain all the limitations thereof. For at least the reasons presented above, applicant submits that the subject dependent claims are likewise in condition for allowance.

Claims 2, 5, 17 and 18 were rejected under 35 U.S.C. § 103(a) as being obvious over *Aristides* in view of U.S. Patent No. 5,812,124 ("*Eick*"). Applicant respectfully traverses the rejection. The subject dependent claims depend from independent claims 19 and 20, respectively, and contain all the limitations thereof. For at least the reasons presented above, applicant submits that the subject dependent claims are likewise in

condition for allowance.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which he might have. If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: June 3, 2008

Respectfully submitted,

By 

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